

C L A I M S

1. A drilling system for drilling a well bore into an earth formation, comprising:

- drilling means for drilling a well bore;

- pumping means for pumping drilling fluid into the well bore during drilling; and

- a drilling fluid outlet system for retrieving drilling fluid from the well bore, said drilling fluid outlet system comprising choke means for choking the return flow of retrieved drilling fluid, and alternating means for alternating the flow direction through the choking means.

2. The drilling system according to claim 1, wherein the drilling fluid outlet system comprises an inlet and an outlet, the choke means comprise a first inlet/outlet connection, a second outlet/inlet connection, and the alternating means connect the inlet alternately to the first or second connection and the outlet alternately to the second or first connection.

3. The drilling system according to claim 2, wherein filter means are arranged in the first and second connection of the choke means.

4. The drilling system according to any of the preceding claims, wherein the alternating means comprise a four way valve, having four connections and wherein the connections are connected two by two.

5. The drilling system according to any of the preceding claims, wherein the drilling fluid outlet system comprises an accumulator.

6. The drilling system according to any of the preceding claims, wherein the choking means comprise a bi-directional choke.

5 7. The drilling system according to any of the preceding claims, wherein the choking means comprise at least two unidirectional chokes.

8. A drilling fluid outlet system according to any of the preceding claims.

10 9. Method of drilling a well bore into an earth formation, comprising:

- drilling the well bore by operating drilling means;
- pumping drilling fluid into the well bore during said drilling; and

15 - retrieving drilling fluid from the well bore in a drilling fluid outlet system, said drilling fluid outlet system comprising choke means for choking the return flow of retrieved drilling fluid, whereby the flow direction of retrieved drilling fluid through the choking means is alternated for flushing away any debris from the choke

20 means.